

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A reception apparatus which receives and reproduces scrambled content, comprising:

reception means for receiving the scrambled content, wherein the scrambled content is scrambled so that a predetermined unit of scrambled content, which is a portion of the scrambled content, is descrambled using a descrambling key corresponding to the predetermined unit of scrambled content, and at least one piece of storage information in which a list of descrambling keys including all descrambling keys to be used for descrambling the scrambled content and descrambling key identifiers that identify the descrambling keys respectively and are used to identify a descrambling key corresponding to the predetermined unit of scrambled content in both a normal reproduction mode that includes a play mode, and a particular reproduction mode that includes a fast-forward mode is embedded,

from the list of descrambling keys, a first group of descrambling keys being extracted in the normal reproduction mode, and a second group of descrambling keys being extracted in the particular reproduction mode;

storage means for storing the received scrambled content and the storage information;

list extraction means for extracting the list of descrambling keys from the stored storage information;

descramble processing means for (a) extracting the predetermined unit of scrambled content from the stored scrambled content ~~either~~ sequentially if in the normal reproduction mode to obtain a first group of scrambled content made of a plurality of portions of the scrambled content, or to obtain a second group of scramble content made of a plurality of portions of the

scrambled content in an order different from the normal reproduction mode if in the particular reproduction mode, (b) i) in the normal reproduction mode, specifying and extracting, using the descrambling key identifiers, the first group of descrambling keys and descrambling each portion of the scrambled content in the first group of scrambled content with use of a corresponding one of the first group of descrambling keys thereby obtaining a first group of content made of a plurality of portions of content, and ii) in the particular reproduction mode, specifying and extracting, using the descrambling key identifiers, the second group of descrambling keys and descrambling each portion of the scramble content in the second group of scrambled content with use of a corresponding one of the second group of descrambling keys thereby obtaining a second group of content made of a plurality of portions of content; ~~a descrambling key corresponding to the predetermined unit of scrambled content from the extracted list of descrambling keys using the descrambling key identifiers in both the normal reproduction mode and the particular reproduction mode, and (c) descrambling, the extracted predetermined unit of scrambled content using the extracted descrambling key; and~~

reproduction means for reproducing the first group of content in the normal reproduction mode and reproducing the second group of content in the particular reproduction mode. ~~the predetermined unit of descrambled content in both the normal reproduction mode and the particular reproduction mode.~~

2. (Previously Presented) The reception apparatus of Claim 1, wherein

the reception means receives one piece of storage information in which the list of descrambling keys is embedded,

the storage means stores the received scrambled content and the one piece of storage information, and

the list extraction means extracts the list of descrambling keys from the stored one piece of storage information.

3. (Previously Presented) The reception apparatus of Claim 1, wherein

the reception means receives a plurality of pieces of storage information in each piece of which a divided portion of the list of descrambling keys is embedded,

the storage means stores the received scrambled content and the plurality of pieces of storage information, and

the list extraction means extracts the list of descrambling keys from the stored plurality of pieces of storage information.

4. (Previously Presented) The reception apparatus of Claim 1, wherein

the reception means sequentially receives a transport stream (TS) packet including the predetermined unit of scrambled content,

the storage means sequentially stores the received TS packet, wherein

the descramble processing means includes:

scrambled content extraction means for extracting the predetermined unit of scrambled content from one of the TS packets stored in the storage means, and counting the ordinal position of the TS packet from the leading TS packet;

descrambling key extraction means for extracting a descrambling key from the list of descrambling keys, based on the counted ordinal position; and

descrambling means for descrambling the extracted predetermined unit of scrambled content using the extracted descrambling key.

5. (Previously Presented) The reception apparatus of Claim 1, wherein

the reception means receives at least one storage Entitlement Control Message (ECM) as the at least one piece of storage information, the list of descrambling keys being embedded in a portion to be encoded in the main body of the ECM,

the storage means stores the received storage ECMs, and

the list extraction means interprets the stored storage ECMs to extract the list of descrambling keys.

6. (Original) The reception apparatus of Claim 5, wherein

the reception means receives the storage ECMs including identifying information for distinguishing the storage ECMs from another type of ECM.

7. (Original) The reception apparatus of Claim 5, wherein

the reception means receives the storage ECMs at a time.

8. (Previously Presented) The reception apparatus of Claim 1, wherein

the reception means sequentially receives a TS packet including (a) the predetermined unit of scrambled content and (b) packet specifying information for specifying an unscrambled TS packet, and

the storage means sequentially stores the received TS packet, wherein

the descramble processing means includes:

scrambled content extraction means for extracting the predetermined unit of scrambled content and the packet specifying information from one of the TS packets stored in the storage means;

descrambling key extraction means for extracting a descrambling key from the list of descrambling keys, based on the extracted packet specifying information; and

descrambling means for descrambling the extracted predetermined unit of scrambled content using the extracted descrambling key.

9. (Previously Presented) The reception apparatus of Claim 8, wherein

the packet specifying information is one of Continuity Counter (CC), the number of TS packets, a cumulative amount of data, a relative reproduction time, and a scrambling key identifier,

the scrambled content extraction means extracts, as the packet specifying information, one of the Continuity Counter (CC), the number of TS packets, the cumulative amount of data, the relative reproduction time, and the scrambling key identifier, and

the descrambling key extraction means performs a predetermined operation to the extracted information as the packet identifying information to generate a descrambling key identifier, and extracts a descrambling key from the list of descrambling keys based on the descrambling key identifier.

10. (Previously Presented) The reception apparatus of Claim 1, wherein

the reception means sequentially receives a TS packet including (a) the predetermined unit of scrambled content and (b) unscrambled I picture information, wherein the I picture information indicates whether the TS packet corresponding to the information consists of a portion of an I picture/an I picture or not, and

the storage means sequentially stores the received TS packet, wherein

the descramble processing means includes:

scrambled content extraction means for, when performing particular reproduction processes, extracting the predetermined unit of scrambled content and I picture information from one of the TS packets stored in the storage means;

I picture judgement means for judging whether the extracted predetermined unit of scrambled content consists of a portion of an I picture/an I picture or not, based on the extracted I picture information;

descrambling key extraction means for extracting a descrambling key from the list of descrambling keys, only when the extracted predetermined unit of scrambled content consists of a portion of an I picture/an I picture; and

descrambling means for descrambling the extracted predetermined unit of scrambled content using the extracted descrambling key.

11. (Previously Presented) The reception apparatus of Claim 1 further managing contract information and consisting of a security module whose portion does not effectively function if a contract has not been made, and other modules, the reception apparatus further comprising:

list holding means for holding the list of descrambling keys extracted by the list extraction means,

wherein the list extraction means and the list holding means are provided within the security module.

12. (Currently Amended) A reception apparatus which receives and reproduces scrambled content, comprising:

reception means for receiving the scrambled content, wherein the scrambled content is scrambled so that a predetermined unit of scrambled content, which is a portion of the scrambled content, is descrambled using a descrambling key corresponding to the predetermined unit of scrambled content, and a descrambling key is attached to each predetermined unit of scrambled content;

storage means for storing the received scrambled content;

list generation means for, when/after storing the received scrambled content by the storage means, generating a list of descrambling keys including all descrambling keys to be used for descrambling the scrambled content and descrambling key identifiers that identify the descrambling keys respectively and are used to identify a descrambling key corresponding to the predetermined unit of scrambled content in both a normal reproduction mode that includes a play mode, and a particular reproduction mode that includes a fast-forward mode, based on the descrambling key attached to each predetermined unit of scrambled content,

from the list of descrambling keys, a first group of descrambling keys being extracted in the normal reproduction mode, and a second group of descrambling keys being extracted in the particular reproduction mode;

descramble processing means for (a) extracting the predetermined unit of scrambled content from the stored scrambled content ~~either~~ sequentially if in the normal reproduction mode

to obtain a first group of scrambled content made of a plurality of portions of the scrambled content, or to obtain a second group of scramble content made of a plurality of portions of the scrambled content in an order different from the normal reproduction mode if in the particular reproduction mode, (b) i) in the normal reproduction mode, specifying and extracting, using the descrambling key identifiers, the first group of descrambling keys and descrambling each portion of the scrambled content in the first group of scrambled content with use of a corresponding one of the first group of descrambling keys thereby obtaining a first group of content made of a plurality of portions of content, and ii) in the particular reproduction mode, specifying and extracting, using the descrambling key identifiers, the second group of descrambling keys and descrambling each portion of the scramble content in the second group of scrambled content with use of a corresponding one of the second group of descrambling keys thereby obtaining a second group of content made of a plurality of portions of content; ~~a descrambling key corresponding to the extracted predetermined unit of scrambled content from the generated list of descrambling keys using the descrambling key identifiers in both the normal reproduction mode and the particular reproduction mode, and (c) descrambling the extracted predetermined unit of scrambled content using the extracted descrambling key; and~~

reproduction means for reproducing the first group of content in the normal reproduction mode and reproducing the second group of content in the particular reproduction mode.~~the predetermined unit of descrambled content in both the normal reproduction mode and the particular reproduction mode.~~

13. (Previously Presented) The reception apparatus of Claim 12, wherein

the reception means sequentially receives a TS packet including (a) the predetermined unit of scrambled content, and (b) auxiliary information including a descrambling key and information for associating the descrambling key with scrambled content,

the storage means sequentially stores the received TS packet, and

the list generation means generates the list of descrambling keys, based on the auxiliary information.

14. (Previously Presented) The reception apparatus of Claim 13, wherein

the TS packet includes an ECM, the auxiliary information being embedded in a portion to be encoded in a main body of the ECM, and

the list generation means extracts the auxiliary information embedded in the ECM, and generates the list of descrambling keys based on the auxiliary information.

15. (Currently Amended) A broadcast apparatus which scrambles content and broadcasts the scrambled content to a reception apparatus, the broadcast apparatus comprising:

acquisition means for acquiring content to be scrambled and a plurality of descrambling keys;

scramble processing means for scrambling a predetermined unit of content out of the acquired content so that the predetermined unit of scrambled content is descrambled using a descrambling key different for each predetermined unit or each set of a plurality of predetermined units;

attaching means for attaching auxiliary information to the predetermined unit of scrambled content, the auxiliary information consisting of (a) information for identifying the

scrambled content and (b) a descrambling key corresponding to the content, and used for having the reception apparatus generate a list of descrambling keys including the descrambling keys and descrambling key identifiers that identify the descrambling keys respectively and are used to identify a descrambling key corresponding to the predetermined unit of scrambled content in both a normal reproduction mode that includes a play mode, and a particular reproduction mode that includes a fast-forward mode,

from the list of descrambling keys, a first group of descrambling keys being extracted in the normal reproduction mode, and a second group of descrambling keys being extracted in the particular reproduction mode; and

broadcast means for broadcasting the scrambled content to which the auxiliary information is added.

16. (Original) The broadcast apparatus of Claim 15, wherein

the attaching means embeds the auxiliary information in a portion to be encoded in a main body of an ECM and attaches the ECM to the predetermined unit of scrambled content.

17. (Currently Amended) A broadcast apparatus which scrambles content and broadcasts the scrambled content to a reception apparatus, the broadcast apparatus comprising:

acquisition means for acquiring content to be scrambled and a plurality of descrambling keys;

list generation means for generating a list of descrambling keys including the descrambling keys and descrambling key identifiers that identify the descrambling keys respectively and are used to identify a descrambling key corresponding to the predetermined unit

of scrambled content in both a normal reproduction mode that includes a play mode, and a particular reproduction mode that includes a fast-forward mode.

from the list of descrambling keys, a first group of descrambling keys being extracted in the normal reproduction mode, and a second group of descrambling keys being extracted in the particular reproduction mode;

embedding means for embedding the list of descrambling keys in at least one piece of predetermined information to generate at least one piece of storage information;

scramble processing means for scrambling a predetermined unit of content out of the acquired content so that the predetermined unit of scrambled content is descrambled using a descrambling key different for each predetermined unit or each set of a plurality of predetermined units; and

broadcast means for broadcasting the generated storage information and the scrambled content.

18. (Previously Presented) The broadcast apparatus of Claim 17, wherein

the embedding means embeds the list of descrambling keys in one piece of predetermined information to generate one piece of storage information, and

the broadcasting means broadcasts the generated one piece of information and the scrambled content.

19. (Previously Presented) The broadcast apparatus of Claim 17, wherein

the embedding means embeds a divided portion of the list of descrambling keys in each of a plurality of pieces of predetermined information to generate a plurality of pieces of storage information, and

the broadcasting means broadcasts the generated plurality of pieces of storage information and the scrambled content.

20. (Previously Presented) The broadcast apparatus of Claim 17, wherein

the embedding means embeds the list of descrambling keys in a portion to be encoded in a main body of at least one ECM to generate at least one piece of storage information.

21. (Original) The broadcast apparatus of Claim 17, wherein

the broadcast means broadcasts one set of the storage information while all the scrambled content corresponding to the storage information are broadcast once.

22. (Currently Amended) A program used for a reception apparatus which receives and reproduces scrambled content, the program being stored on a computer-readable medium and having the reception apparatus conduct the following steps of:

a reception step for receiving the scrambled content, wherein the scrambled content is scrambled so that a predetermined unit of scrambled content, which is a portion of the scrambled content, is descrambled using a descrambling key corresponding to the predetermined unit of scrambled content, and at least one piece of storage information in which a list of descrambling keys including all descrambling keys to be used for descrambling the scrambled content and descrambling key identifiers that identify the descrambling keys respectively and are used to

identify a descrambling key corresponding to the predetermined unit of scrambled content in both a normal reproduction mode that includes a play mode, and a particular reproduction mode that includes a fast-forward mode is embedded,

from the list of descrambling keys, a first group of descrambling keys being extracted in the normal reproduction mode, and a second group of descrambling keys being extracted in the particular reproduction mode;

a storage step for storing the received scrambled content and the storage information;

a list extraction step for extracting the list of descrambling keys from the stored storage information;

a descramble processing step for (a) extracting the predetermined unit of scrambled content from the stored scrambled content ~~either~~ sequentially if in the normal reproduction mode to obtain a first group of scrambled content made of a plurality of portions of the scrambled content, or to obtain a second group of scramble content made of a plurality of portions of the scrambled content in an order different from the normal reproduction mode if in the particular reproduction mode, (b) i) in the normal reproduction mode, specifying and extracting, using the descrambling key identifiers, the first group of descrambling keys and descrambling each portion of the scrambled content in the first group of scrambled content with use of a corresponding one of the first group of descrambling keys thereby obtaining a first group of content made of a plurality of portions of content, and ii) in the particular reproduction mode, specifying and extracting, using the descrambling key identifiers, the second group of descrambling keys and descrambling each portion of the scramble content in the second group of scrambled content with use of a corresponding one of the second group of descrambling keys thereby obtaining a second group of content made of a plurality of portions of content; ~~a descrambling key corresponding to~~

~~the predetermined unit of scrambled content from the extracted list of descrambling keys using the descrambling key identifiers in both the normal reproduction mode and the particular reproduction mode, and (e) descrambling the extracted predetermined unit of scrambled content using the extracted descrambling key; and~~

~~a reproduction step for reproducing the first group of content in the normal reproduction mode and reproducing the second group of content in the particular reproduction mode. the predetermined unit of descrambled content in both the normal reproduction mode and the particular reproduction mode.~~

23. (Currently Amended) A program used for a reception apparatus which receives and reproduces scrambled content, the program being stored on a computer-readable medium and having the reception apparatus conduct the following steps of:

a reception step for receiving the scrambled content, wherein the scrambled content is scrambled so that a predetermined unit of scrambled content, which is a portion of the scrambled content, is descrambled using a descrambling key corresponding to the predetermined unit of scrambled content, and a descrambling key is attached to each predetermined unit of scrambled content;

a storage step for storing the received scrambled content;

a list generation step for, when / after storing the received scrambled content in the storage step, generating a list of descrambling keys including all descrambling keys to be used for descrambling the scrambled content and descrambling key identifiers that identify the descrambling keys respectively and are used to identify a descrambling key corresponding to the predetermined unit of scrambled content in both a normal reproduction mode that includes a play

mode, and a particular reproduction mode that includes a fast-forward mode, based on the descrambling key attached to each predetermined unit of scrambled content,

from the list of descrambling keys, a first group of descrambling keys being extracted in the normal reproduction mode, and a second group of descrambling keys being extracted in the particular reproduction mode;

a descramble processing step for (a) extracting the predetermined unit of scrambled content from the stored scrambled content ~~either~~ sequentially if in a normal reproduction mode to obtain a first group of scrambled content made of a plurality of portions of the scrambled content, or to obtain a second group of scramble content made of a plurality of portions of the scrambled content in an order different from the normal reproduction mode if in a particular reproduction mode, (b) i) in the normal reproduction mode, specifying and extracting, using the descrambling key identifiers, the first group of descrambling keys and descrambling each portion of the scrambled content in the first group of scrambled content with use of a corresponding one of the first group of descrambling keys thereby obtaining a first group of content made of a plurality of portions of content, and ii) in the particular reproduction mode, specifying and extracting, using the descrambling key identifiers, the second group of descrambling keys and descrambling each portion of the scramble content in the second group of the scrambled content with use of a corresponding one of the second group of descrambling keys thereby obtaining a second group of content made of a plurality of portions of content; ~~a descrambling key corresponding to the extracted predetermined unit of scrambled content from the generated list of descrambling keys using the descrambling key identifiers in both the normal reproduction mode and the particular reproduction mode, and (c) descrambling the extracted predetermined unit of scrambled content using the extracted descrambling key; and~~

a reproduction step for reproducing the first group of content in the normal reproduction mode and reproducing the second group of content in the particular reproduction mode~~the predetermined unit of descrambled content in both the normal reproduction mode and the particular reproduction mode.~~

24. (Currently Amended) A program used for a broadcast apparatus which scrambles content and broadcasts the scrambled content to a reception apparatus, the program being stored on a computer-readable medium and having the broadcast apparatus conduct the following steps of:

an acquisition step for acquiring content to be scrambled and a plurality of descrambling keys;

a scramble processing step for scrambling a predetermined unit of content out of the acquired content so that the predetermined unit of scrambled content is descrambled using a descrambling key different for each predetermined unit or each set of a plurality of predetermined units;

an attaching step for attaching auxiliary information to the predetermined unit of scrambled content, the auxiliary information consisting of (a) information for identifying the scrambled content and (b) a descrambling key corresponding to the content, and used for having the reception apparatus generate a list of descrambling keys including the descrambling keys and descrambling key identifiers that identify the descrambling keys respectively and are used to identify a descrambling key corresponding to the predetermined unit of scrambled content in both a normal reproduction mode that includes a play mode, and a particular reproduction mode; and that includes a fast-forward mode,

from the list of descrambling keys, a first group of descrambling keys being extracted in the normal reproduction mode, and a second group of descrambling keys being extracted in the particular reproduction mode; and

a broadcast step for broadcasting the scrambled content to which the auxiliary information is added.

25. (Currently Amended) A program used for a broadcast apparatus which scrambles content and broadcasts the scrambled content to a reception apparatus, the program being stored on a computer-readable medium having the broadcast apparatus conduct the following steps of:

an acquisition step for acquiring content to be scrambled and a plurality of descrambling keys;

a list generation step for generating a list of descrambling keys including the descrambling keys and descrambling key identifiers that identify the descrambling keys respectively and are used to identify a descrambling key corresponding to the predetermined unit of scrambled content in both a normal reproduction mode that includes a play mode, and a particular reproduction mode that includes a fast-forward mode,

from the list of descrambling keys, a first group of descrambling keys being extracted in the normal reproduction mode, and a second group of descrambling keys being extracted in the particular reproduction mode;

an embedding step for embedding the list of descrambling keys in at least one piece of predetermined information to generate at least one piece of storage information;

a scramble processing step for scrambling a predetermined unit of content out of the acquired content so that the predetermined unit of scrambled content is descrambled using a

descrambling key different for each predetermined unit or each set of a plurality of predetermined units; and

a broadcast step for broadcasting the generated storage information and the scrambled content.

26. (Currently Amended) A computer-readable recording medium on which a program used for a reception apparatus which receives and reproduces scrambled content is recorded, the program has the reception apparatus conduct the following steps of:

a reception step for receiving the scrambled content, wherein the scrambled content is scrambled so that a predetermined unit of scrambled content, which is a portion of the scrambled content, is descrambled using a descrambling key corresponding to the predetermined unit of scrambled content, and at least one piece of storage information in which a list of descrambling keys including all descrambling keys to be used for descrambling the scrambled content and descrambling key identifiers that identify the descrambling keys respectively and are used to identify a descrambling key corresponding to the predetermined unit of scrambled content in both a normal reproduction mode that includes a fast-forward mode, and a particular reproduction mode that includes a fast-forward mode is embedded,

from the list of descrambling keys, a first group of descrambling keys being extracted in the normal reproduction mode, and a second group of descrambling keys being extracted in the particular reproduction mode;

a storage step for storing the received scrambled content and the storage information;

a list extraction step for extracting the list of descrambling keys from the stored storage information;

a descramble processing step for (a) extracting the predetermined unit of scrambled content from the stored scrambled content ~~either~~ sequentially if in the normal reproduction mode to obtain a first group of scrambled content made of a plurality of portions of the scrambled content, or to obtain a second group of scramble content made of a plurality of portions of the scrambled content in an order different from the normal reproduction mode if in the particular reproduction mode, (b) i) in the normal reproduction mode, specifying and extracting, using the descrambling key identifiers, the first group of descrambling keys and descrambling each portion of the scrambled content in the first group of scrambled content with use of a corresponding one of the first group of descrambling keys thereby obtaining a first group of content made of a plurality of portions of content, and ii) in the particular reproduction mode, specifying and extracting, using the descrambling key identifiers, the second group of descrambling keys and descrambling each portion of the scramble content in the second group of scrambled content with use of a corresponding one of the second group of descrambling keys thereby obtaining a second group of content made of a plurality of portions of content;

~~a descrambling key corresponding to the predetermined unit of scrambled content from the extracted list of descrambling keys using the descrambling key identifiers in both the normal reproduction mode and the particular reproduction mode, and (c) descrambling the extracted predetermined unit of scrambled content using the extracted descrambling key; and~~

a reproduction step for reproducing the first group of content in the normal reproduction mode and reproducing the second group of content in the particular reproduction mode ~~the predetermined unit of descrambled content in both the normal reproduction mode and the particular reproduction mode.~~

27. (Currently Amended) A computer-readable recording medium on which a program used for a reception apparatus which receives and reproduces scrambled content is recorded, the program has the reception apparatus conduct the following steps of:

a reception step for receiving the scrambled content, wherein the scrambled content is scrambled so that a predetermined unit of scrambled content, which is a portion of the scrambled content, is descrambled using a descrambling key corresponding to the predetermined unit of scrambled content, and a descrambling key is attached to each predetermined unit of scrambled content;

a storage step for storing the received scrambled content;

a list generation step for, when / after storing the received scrambled content in the storage step, generating a list including all descrambling keys to be used for descrambling the scrambled content and descrambling key identifiers that identify the descrambling keys respectively and are used to identify a descrambling key corresponding to the predetermined unit of scrambled content in both a normal reproduction mode that includes a play mode, and a particular reproduction mode that includes a fast-forward mode, based on the descrambling key attached to each predetermined unit of scrambled content,

from the list of descrambling keys, a first group of descrambling keys being extracted in the normal reproduction mode, and a second group of descrambling keys being extracted in the particular reproduction mode;

a descramble processing step for (a) extracting the predetermined unit of scrambled content from the stored scrambled content ~~either~~ sequentially if in the normal reproduction mode to obtain a first group of scrambled content made of a plurality of portions of the scrambled content or to obtain a second group of scramble content made of a plurality of portions of the

scrambled content, or in an order different from the normal reproduction mode if in the particular reproduction mode, (b) i) in the normal reproduction mode, specifying and extracting, using the descrambling key identifiers, the first group of descrambling keys and descrambling each portion of the scrambled content in the first group of scrambled content with use of a corresponding one of the first group of descrambling keys thereby obtaining a first group of content made of a plurality of portions of content, and ii) in the particular reproduction mode, specifying and extracting, using the descrambling key identifiers, the second group of descrambling keys and descrambling each portion of the scramble content in the second group of scrambled content with use of a corresponding one of the second group of descrambling keys thereby obtaining a second group of content made of a plurality of portions of content; a descrambling key corresponding to the extracted predetermined unit of scrambled content from the generated list of descrambling keys using the descrambling key identifiers in both the normal reproduction mode and the particular reproduction mode, and (c) descrambling the extracted predetermined unit of scrambled content using the extracted descrambling key; and

a reproduction step for reproducing the first group of content in the normal reproduction mode and reproducing the second group of content in the particular reproduction mode.~~the predetermined unit of descrambled content in both the normal reproduction mode and the particular reproduction mode.~~

28. (Currently Amended) A computer-readable recording medium on which a program used for a broadcast apparatus which scrambles content and broadcasts the content to a reception apparatus is recorded, the program has the broadcast apparatus conduct the following steps of:

an acquisition step for acquiring content to be scrambled and a plurality of descrambling keys;

a scramble processing step for scrambling a predetermined unit of content out of the acquired content so that the predetermined unit of scrambled content is descrambled using a descrambling key different for each predetermined unit or each set of a plurality of predetermined units;

an attaching step for attaching auxiliary information to the predetermined unit of scrambled content, the auxiliary information consisting of (a) information for identifying the scrambled content and (b) a descrambling key corresponding to the content, and used for having the reception apparatus generate a list of descrambling keys including the descrambling keys and descrambling key identifiers that identify the descrambling keys respectively and are used to identify a descrambling key corresponding to the predetermined unit of scrambled content in both a normal reproduction mode that includes a play mode, and a particular reproduction mode that includes a fast-forward mode,

from the list of descrambling keys, a first group of descrambling keys being extracted in the normal reproduction mode, and a second group of descrambling keys being extracted in the particular reproduction mode; and

a broadcast step for broadcasting the scrambled content to which the auxiliary information is added.

29. (Currently Amended) A computer-readable recording medium on which a program used for a broadcast apparatus which scrambles content and broadcasts the content to a reception apparatus is recorded, the program has the broadcast apparatus conduct the following steps of:

an acquisition step for acquiring content to be scrambled and a plurality of descrambling keys;

a list generation step for generating a list of descrambling keys including the descrambling keys and descrambling key identifiers that identify the descrambling keys respectively and are used to identify a descrambling key corresponding to the predetermined unit of scrambled content in both a normal reproduction mode that includes a play mode, and a particular reproduction mode that includes a fast-forward mode,

from the list of descrambling keys, a first group of descrambling keys being extracted in the normal reproduction mode, and a second group of descrambling keys being extracted in the particular reproduction mode;

an embedding step for embedding the list of descrambling keys in at least one piece of predetermined information to generate at least one piece of storage information;

a scramble processing step for scrambling a predetermined unit of content out of the acquired content so that the predetermined unit of scrambled content is descrambled using a descrambling key different for each predetermined unit or each set of a plurality of predetermined units; and

a broadcast step for broadcasting the generated storage information and the scrambled content.

30. (Currently Amended) A computer-readable recording medium on which content to be broadcast to a reception apparatus is recorded, wherein the reception apparatus receives and stores scrambled content, and descrambles and reproduces the stored scrambled content, the content comprising:

scrambled content which is scrambled so that a predetermined unit of scrambled content, which is a portion of the scrambled content, is descrambled using a descrambling key corresponding to the predetermined unit of content, and

a storage ECM, wherein a list of descrambling keys including all descrambling keys used for descrambling the scrambled content and descrambling key identifiers that identify the descrambling keys respectively and are used to identify a descrambling key corresponding to the predetermined unit of scrambled content in both a normal reproduction mode that includes a play mode, and a particular reproduction mode that includes a fast-forward mode, is embedded in a portion to be encoded in a main body of at least one ECM,

from the list of descrambling keys, a first group of descrambling keys being extracted in the normal reproduction mode, and a second group of descrambling keys being extracted in the particular reproduction mode.

31. (Currently Amended) A method for receiving and reproducing scrambled content, the method comprising the steps of:

a reception step for receiving the scrambled content, wherein the scrambled content is scrambled so that a predetermined unit of scrambled content, which is a portion of the scrambled content, is descrambled using a descrambling key corresponding to the predetermined unit of scrambled content, and at least one piece of storage information in which a list of descrambling keys including all descrambling keys to be used for descrambling the scrambled content and descrambling key identifiers that identify the descrambling keys respectively and are used to identify a descrambling key corresponding to the predetermined unit of scrambled content in

both a normal reproduction mode that includes a play mode, and a particular reproduction mode is embedded that includes a fast-forward mode,

from the list of descrambling keys, a first group of descrambling keys being extracted in the normal reproduction mode, and a second group of descrambling keys being extracted in the particular reproduction mode;

a storage step for storing the received scrambled content and the storage information;

a list extraction step for extracting the list of descrambling keys from the stored storage information;

a descramble processing step for (a) extracting the predetermined unit of scrambled content from the stored scrambled content ~~either~~ sequentially if in the normal reproduction mode to obtain a first group of scrambled content made of a plurality of portions of the scrambled content, or to obtain a second group of scramble content made of a particularity of portions of the scrambled content in an order different from the normal reproduction mode if in the particular reproduction mode, (b) i) in the normal reproduction mode, specifying and extracting, using the descrambling key identifiers, the first group of descrambling keys and descrambling each portion of the scrambled content in the first group of scrambled content with use of a corresponding one of the first group of descrambling keys thereby obtaining a first group of content made of a plurality of portions of content, and ii) in the particular reproduction mode, specifying and extracting, using the descrambling key identifiers, the second group of descrambling keys and descrambling each portion of the scramble content in the second group of scrambled content with use of a corresponding one of the second group of descrambling keys thereby obtaining a second group of content made of a plurality of portion of content; a descrambling key corresponding to the predetermined unit of scrambled content from the extracted list of descrambling keys using

~~the descrambling key identifiers in both the normal reproduction mode and the particular reproduction mode, and (c) descrambling the extracted predetermined unit of scrambled content using the extracted descrambling key; and~~

~~a reproduction step for reproducing the first group of content in the normal reproduction mode and reproducing the second group of content in the particular reproduction mode, the predetermined unit of descrambled content in both the normal reproduction mode and the particular reproduction mode.~~

32. (Currently Amended) A method for receiving and reproducing scrambled content, the method comprising the steps of:

a reception step for receiving the scrambled content, wherein the scrambled content is scrambled so that a predetermined unit of scrambled content, which is a portion of the scrambled content, is descrambled using a descrambling key corresponding to the predetermined unit of scrambled content, and a descrambling key is attached to each predetermined unit of scrambled content;

a storage step for storing the received scrambled content;

a list generation step for, when/after storing the received scrambled content in the storage step, generating a list of descrambling keys including all descrambling keys to be used for descrambling the scrambled content and descrambling key identifiers that identify the descrambling keys respectively and are used to identify a descrambling key corresponding to the predetermined unit of scrambled content in both a normal reproduction mode that includes a play mode, and a particular reproduction mode that includes a fast-forward mode, based on the descrambling key attached to each predetermined unit of scrambled content;

from the list of descrambling keys, a first group of descrambling keys being extracted in the normal reproduction mode, and a second group of descrambling keys being extracted in the particular reproduction mode;

a descramble processing step for (a) extracting the predetermined unit of scrambled content from the stored scrambled content ~~either~~ sequentially if in the normal reproduction mode to obtain a first group of scrambled content made of a plurality of portions of the scrambled content, or to obtain a second group of scramble content made of a plurality of portions of he scrambled content in an order different from the normal reproduction mode if in the particular reproduction mode, (b) i) in the normal reproduction mode, specifying and extracting, using the descrambling key identifiers, the first group of descrambling keys and descrambling each portion of the scrambled content in the first group of scrambled content with use of a corresponding one of the first group of descrambling keys thereby obtaining a first group of content made of a plurality of portions of content, and ii) in the particular reproduction mode, specifying and extracting, using the descrambling key identifiers, the second group of descrambling keys and descrambling each portion of the scramble content in the second group of scrambled content with use of a corresponding one of the second group of descrambling keys thereby obtaining a second group of content made of a plurality of portions of content; a descrambling key corresponding to the extracted predetermined unit of scrambled content from the generated list of descrambling keys using the descrambling key identifiers in both the normal reproduction mode and the particular reproduction mode, and (c) descrambling the extracted predetermined unit of scrambled content using the extracted descrambling key; and

a reproduction step for reproducing the first group of content in the normal reproduction mode and reproducing the second group of content in the particular reproduction mode.~~the~~

~~predetermined unit of descrambled content in both the normal reproduction mode and the particular reproduction mode.~~

33. (Currently Amended) A method for scrambling content and broadcasting the scrambled content to a reception apparatus, the method comprising the steps of:

an acquisition step for acquiring content to be scrambled and a plurality of descrambling keys;

a scramble processing step for scrambling a predetermined unit of content out of the acquired content so that the predetermined unit of scrambled content is descrambled using a descrambling key different for each predetermined unit or each set of a plurality of predetermined units;

an attaching step for attaching auxiliary information to the predetermined unit of scrambled content, the auxiliary information consisting of (a) information for identifying the scrambled content and (b) a descrambling key corresponding to the content, and used for having the reception apparatus generate a list of descrambling keys including the descrambling keys and descrambling key identifiers that identify the descrambling keys respectively and are used to identify a descrambling key corresponding to the predetermined unit of scrambled content in both a normal reproduction mode that includes a play mode, and a particular reproduction mode that includes a fast-forward mode,

from the list of descrambling keys, a first group of descrambling keys being extracted in the normal reproduction mode, and a second group of descrambling keys being extracted in the particular reproduction mode;

a broadcast step for broadcasting the scrambled content to which the auxiliary information is added.

34. (Currently Amended) A method for scrambling content and broadcasting the scrambled content to a reception apparatus, the method comprising the steps of:

an acquisition step for acquiring content to be scrambled and a plurality of descrambling keys;

a list generation step for generating a list of descrambling keys including the descrambling keys and descrambling key identifiers that identify the descrambling keys respectively and are used to identify a descrambling key corresponding to the predetermined unit of scrambled content in both a normal reproduction mode that includes a play mode, and a particular reproduction mode that includes a fast-forward mode,

from the list of descrambling keys, a first group of descrambling keys being extracted in the normal reproduction mode, and a second group of descrambling keys being extracted in the particular reproduction mode;

an embedding step for embedding the list of descrambling keys in at least one piece of predetermined information to generate at least one piece of storage information;

a scramble processing step for scrambling a predetermined unit of content out of the acquired content so that the predetermined unit of scrambled content is descrambled using a descrambling key different for each predetermined unit or each set of a plurality of predetermined units; and

a broadcast step for broadcasting the generated storage information and the scrambled content.